Sony Ericsson

Troubleshooting Guide

- electrical -

Satio

U1a,U1i,U_1

1230-3676 Rev2

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CONTENTS

1 Troubleshooting Flow 3
- 1.1 Display 3
- 1.2 Illumination 4
- 1.3 Keys and Sensors 5
- 1.4 Alert and RTC 6
- 1.5 Audio 7
- 1.6 On/Off 8
- 1.7 Charging/Capacity 9
- 1.8 SIM 10
- 1.9 Camera 10
- 1.10 Data Communication 11
- 1.11 Memory Stick / Memory Card 11
- 1.12 Network/Signal 12

2 Revision History 13

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1 Troubleshooting Flow

For information about troubleshooting and optional troubleshooting equipment, refer to the 'Generic Repair Manual – electrical', section 'Troubleshooting Directions'!

1.1 Display

Symptom:	Display problem
Replace:	**X2900** if damaged vision check all pins **Z2500, Z2501, Z2502, Z2503, Z2504, Z2505, Z2506** or **Z2507** **N2631, N2632, N2633 or N2636** **N2630**

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1.2 Illumination

Symptom: **Replace:**	No Display and Key illumination **L4010** if more than 1 Ohm **V4180** **N4180**
Symptom: **Replace:**	No Display illumination **X2900** if damaged vision check A23 and B23 **N4180**
Symptom: **Replace:**	No keys illumination **V4121** or **V4122** **N4180**
Symptom: **Replace:**	No Camera Key Blue LED **X2902** if damaged vision check B5-B7 **N4180**
Symptom: **Replace:**	No Torch LED (White LED as autofocus assistant and movie recording assistant light source) **X2842** if damaged vision check A6-A8 and A10-A11 **N4180**
Symptom: **Replace:**	No Camera Cover Blue LEDs (3 blue ornament LEDs) **X2842** if damaged vision check A1-A3 and A13-A15 **N4180**
Symptom: **Replace:**	No Tally LED (Red tally LED for video recording indication and self-timer indication) **X2842** if damaged vision check A1-A3 and A16 **N4180**
Symptom: **Replace:**	No Flash LED (Xenon flash) **X1018** if damaged **X2842** if damaged vision check B1-B9 and B11-B13 **X2820** if damaged vision check A9 and A13 **N2802** **V2802** **N2803**
Symptom: **Replace:**	No Red LEDs and Green LED on Receiver FCP (Trickle Charge LED and Charger LEDs) **X2821** if damaged vision check A13-A17

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1.3 Keys and Sensors

Symptom: **Replace:**	Power On keys problems **X2821** if damaged vision check A2 and B1-B3
Symptom: **Replace:**	Touch Screen problems **X2821** if damaged vision check B14-B17
Symptom: **Replace:**	Volume Down key problems **X2902** if damaged vision check B2 and B4
Symptom: **Replace:**	Volume Up key problems **X2902** if damaged vision check A2 and B3
Symptom: **Replace:**	Mode Select key problems **X2902** if damaged vision check A4 and A6
Symptom: **Replace:**	Play / view key problems **X2902** if damaged vision check A5 and B4
Symptom: **Replace:**	Auto focus and Camera shutter problems **X2902** if damaged vision check A2,A6 and B3
Symptom: **Replace:**	Lock key problems **S2500**
Symptom: **Replace:**	Light Sensor problems (no changes in display illuminations when covering light sensors) **X2821** if damaged vision check B12-B13 **N4180**
Symptom: **Replace:**	Proximity Sensor problems (Display Illuminations does not turn off in a call when the sensor are covered) **X2821** if damaged vision check B18-B25
Symptom: **Replace:**	Accelerometer problems **N2800**
Symptom: **Replace:**	Camera cover detect problems **X2842** if damaged vision check B1-B3 and B10

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1.4 Alert / RTC

Symptom: **Replace:**	Vibrator problems **B4000**
Symptom: **Replace:**	The clock gain or lose time. SERP calibrating is performed **B2000**
Symptom: **Replace:**	The clock has to be set after the battery has been detached **C4036**

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1.5 Audio

Symptom: **Replace:**	No Microphone **D5500**
Symptom: **Replace:**	No Earphone / Ear speaker **X2821** if damaged Vision check A23-A24
Symptom: **Replace:**	No or bad Loudspeaker **L5506** or **L5507** if more than 2 Ohm **V5500** **N5506**
Symptom: **Replace:**	No Hands-free (PHF) Aux Microphone **X3000** if damaged Vision check 3-4 **L3000** or **L3002** if more than 2 Ohm **N5502**
Symptom: **Replace:**	No Hands-free (PHF) Aux Earphone / Aux Ear speaker **X3000** if damaged Vision check 2 and 5-6 **L3001, L3003** or **L3004** if more than 2 Ohm **N5502** **N5500**
Symptom: **Replace:**	No Microphone and no Earphone / Ear speaker. Phone stuck in PHF mode when PHF is not attached **V3001** if short circuit **N3000**
Symptom: **Replace:**	No Hands-free (PHF) audio .Phone not recognizes PHF set **X3000** if damaged Vision check 8-9 **N3000**
Symptom: **Replace:**	No FM Radio (PHF) **X3000** if damaged **N1403** **N1400**

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1.6 On/Off

Symptom: **Replace:**	Current draw greater than 300 mAmps **N1001** if module getting hot
Symptom: **Replace:**	Current draw when powered off **N1001**
Symptom: **Replace:**	Using no current when On/Off key is pressed and will not start. Starts when charger is inserted **X2821** if damaged vision check A2 and B1-B3
Symptom: **Replace:**	Draws current when On/Off key is pressed, returns to zero **L4000** , **L4002** or **L4005** if more than 1 Ohm **L4130** or **L4131** if more than 2 Ohm **N4000** **N4003** **N4004** **B2000** **N1001**
Symptom: **Replace:**	Will no power off **V2101**
Symptom: **Replace:**	Other **X4000** if damaged

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1.7 Charging/Capacity

Symptom: **Replace:**	No Charging from power outlet **X3000** or **X4000** if damaged **C3013** if short circuit **V4001**
Symptom: **Replace:**	No Charging from computer via USB **X3000** if damaged **C3011** if short circuit **N3005**
Symptom: **Replace:**	The clock has to be set after the battery has been detached **C4036**

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1.8 SIM

Symptom:	SIM not detected
Replace:	**X2842** if damaged Vision check A19-A20 and B15-B20

1.9 Camera

Symptom:	Main and VGA / VT Camera problems
Replace:	**L4132** if more than 2 Ohm **L4101** if more than 2 Ohm **N4150** **N4152**
Symptom:	Main Camera problems
Replace:	**X2820** if damaged vision check all pins
Symptom:	VGA / VT Camera problems
Replace:	**X2821** if damaged vision check A4-A13 ,A18-A21, B4-B11

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1.10 Data Communication

Symptom: Replace:	No communication via the System Connector **X3000** if damaged Vision check 1 and 9-11 **N3005** and **C3011** if not charging via USB **N3002** if pin10 or pin 11 at X3000 is short circuit to GND or VBAT. **Z3000**
Symptom: Replace:	Bad Bluetooth and Wlan connection **X1401** if damaged **L1404** if more than 1 Ohm **N1401**
Symptom: Replace:	No Bluetooth or Wlan connection **N1403** **N1400**
Symptom: Replace:	No GPS connection **L1502** if more than 1 Ohm **Z1500** **B1500** **N1500**
Symptom: Replace:	No or bad TV out **X3000** if damaged Vision check 7-9 **V3002** if short circuit **N3006**

1.11 Memory Stick / Memory Card

Symptom: Replace:	Memory stick / Memory Card (Micro SD) not detected **X2600** if damaged

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1.12 Network/Signal

Symptom: Action:	Phone fails to lock on to network during radiated (wireless) Go / No Go test Use RF probe to perform conducted Go / No Go test
Symptom: Check: Check: Replace: Action:	Phone passes conducted (RF cable) Go / No Go test but fails radiated (wireless) Go / No Go test **X1010**, **X1011**, **X1012**, **X1013**, **X1014**, **X1015**, **X1016** and **X1017** for damage and replace if necessary **X1000** for damage and replace if necessary Antenna Rerun the phone through radiated (wireless) Go/No Go testing
Symptom: Replace:	Phone fails conducted (RF probe) Go / No Go test Run the calibration routine
Symptom: Replace:	Fails conducted (RF probe) Go/No Go test, but passes calibration Rerun the phone through Go/No Go testing
Symptom: Replace:	Fails any part of the calibration routine **X1000** if damaged **N4003** or **N1001** if GSM fault **N1000** or **N1001** if UMTS fault

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2 Revision History

Rev.	Date	Changes / Comments
1	2009-Okt-14	Initial release
2	2009-Okt-16	Template changes

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